Remarks/Arguments:

This is a reply to the office action of December 27.

Claim 1 has been amended to better distinguish the invention from the prior art of record. Claims 50 and 57 have been canceled.

As the enclosed Fig. A shows, Dang provides a bridge every four outer lobes (defined as the lobes having long straight outer arms) and one internal lobe. Fischell shows a bridge every three full lobes.

If half lobes are counted, the present application provides a bridge every four outer lobes and two inner lobes, whereas Fischell shows a bridge every three outer lobes and two inner lobes.

Therefore neither Dang nor Fischell discloses a stent with a structure having a bridge every five complete lobes, three outer lobes (with long arms) and two inner lobes (with short arms or without arms), and that combination is not obvious from Dang and Fischell in combination.

Furthermore, Fischell discloses a bridge every outer lobe (the outer lobes having the same orientation) (see Fig. A, attached).

Fischell does not shows a module with only three lobes comprising two outer lobes (with long arms) and one inner lobe (with no or short arms) disposed between the two outer lobes.

If one were to follow Fischell's teaching, there would be a bridge every outer lobe (see Fig. B, attached). With this teaching the stent would be divided into two cells:

cell “A” (small cell with only one lobe for each row) and cell “B” (having three lobes; a shape closest to the Fischell’s solution).

The present application (see Fig. C, attached) has a single a cell formed by:
- five complete lobes (therefore not all the outer lobes are connected with a bridge)
- these five lobes comprising three outer lobes (with long outer arms) and two inner lobes (with short arms or without arms).

Claim 1 has been amended to recite the above features, specifically three outer lobes and two inner lobes.

Providing a five-lobed cell makes it possible to produce a stent having an adequately flexible geometry (adapting itself to the vessel shape and, when crimped to the balloon to follow the tortuosity of the vessels) and, at the same time, adequate scaffolding.

Comparing the prior art solutions with the invention, the cell length (the portions of the interlaced lines delimited by the bridges, the cell perimeter) shows a greater number of lobes, in particular with inner lobes disposed in between outer lobes, which provides greater scaffolding of the vessel walls and at the same time uniform distribution of the load and therefore uniform stress distribution during expansion of the stent.

The solution of three outer lobes and two inner lobes provides a non symmetric cell (Dang shows a symmetric cell both in axial and circumferential direction) that facilitates the crimping of the stent on the balloon and even increases the stent’s flexibility, while avoiding a reduction in stent scaffolding.

We believe that the amended claims are patentable over the prior art of record, and that this application is now in condition for allowance.

Respectfully submitted,

/Charles Fallow/

Charles W. Fallow
Reg. No. 28,946

Shoemaker and Mattare, Ltd.
10 Post Office Road - Suite 100
Silver Spring, Maryland 20910

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